

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/008552

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G01N9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G01N G01G B65B B81B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 644 803 A (WARD ROGER W) 24 February 1987 (1987-02-24) column 4, lines 20-66; figure 1	1-40
Y	US 6 155 098 A (DEAN ANTHONY JOHN ET AL) 5 December 2000 (2000-12-05) column 3, lines 17-35 column 4, lines 46-56	1-40
Y	US 2003/000291 A1 (KOLOSOV OLEG ET AL) 2 January 2003 (2003-01-02) paragraph '0078!	2-7
A	US 5 477 726 A (STABINGER HANS ET AL) 26 December 1995 (1995-12-26) column 2, lines 46-61; figure 1 -/-	1,8-40

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the International filing date but later than the priority date claimed

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the International search

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PCT/US2004/008552

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 182 499 B1 (MATSIEV LEONID ET AL) 6 February 2001 (2001-02-06) column 11, line 56 - column 12, line 14; figure 5 -----	1,8-40
A	US 2002/074897 A1 (MA QING ET AL) 20 June 2002 (2002-06-20) page 2, paragraph 34 - page 3, paragraph 40; figures 9-16 -----	2-7
A	US 2002/178805 A1 (WALKOW ARNOLD ET AL) 5 December 2002 (2002-12-05) paragraph '0011! -----	2-7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US2004/008552

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4644803	A	24-02-1987	US 4574639 A 11-03-1986
		AT 37233 T 15-09-1988	
		CA 1232775 A1 16-02-1988	
		DE 3474064 D1 20-10-1988	
		EP 0129753 A1 02-01-1985	
		JP 60010148 A 19-01-1985	
		US 4526480 A 02-07-1985	
		US 4644796 A 24-02-1987	
US 6155098	A	05-12-2000	US 6073479 A 13-06-2000
			EP 1001259 A2 17-05-2000
			JP 2000283938 A 13-10-2000
US 2003000291	A1	02-01-2003	WO 02099414 A1 12-12-2002
US 5477726	A	26-12-1995	AT 394784 B 25-06-1992
			AT 128768 T 15-10-1995
			DE 59106620 D1 09-11-1995
			EP 0487498 A1 27-05-1992
			AT 237790 A 15-11-1991
US 6182499	B1	06-02-2001	US 6030917 A 29-02-2000
			AT 239227 T 15-05-2003
			AU 9599898 A 27-04-1999
			DE 69814035 D1 05-06-2003
			DE 69814035 T2 23-10-2003
			EP 1361428 A2 12-11-2003
			EP 1361429 A2 12-11-2003
			EP 0943091 A1 22-09-1999
			ES 2199467 T3 16-02-2004
			WO 9918431 A1 15-04-1999
			US 6393895 B1 28-05-2002
			US 2002178787 A1 05-12-2002
			US 2003041653 A1 06-03-2003
			US 2004074302 A1 22-04-2004
			US 2004074303 A1 22-04-2004
			US 6401519 B1 11-06-2002
			US 2001010174 A1 02-08-2001
			AT 222401 T 15-08-2002
			AU 4673497 A 05-05-1998
			AU 4749397 A 05-05-1998
			AU 4812097 A 05-05-1998
			AU 4902497 A 05-05-1998
			AU 7801698 A 30-12-1998
			AU 8499798 A 16-02-1999
			CA 2267897 A1 16-04-1998
			CA 2267908 A1 16-04-1998
			CA 2297657 A1 04-02-1999
			DE 69714789 D1 19-09-2002
			DE 69714789 T2 05-12-2002
			DK 1019947 T3 02-12-2002
			EP 1280185 A1 29-01-2003
			EP 1019947 A2 19-07-2000
			EP 0934515 A1 11-08-1999
			EP 1021711 A2 26-07-2000
			EP 0920436 A1 09-06-1999
			EP 0950114 A1 20-10-1999
			EP 1000074 A1 17-05-2000

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/008552

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6182499	B1	ES 2182040 T3	01-03-2003
		WO 9815969 A2	16-04-1998
		WO 9815813 A1	16-04-1998
		WO 9815501 A2	16-04-1998
		WO 9815805 A1	16-04-1998
		WO 9856796 A1	17-12-1998
		WO 9905318 A1	04-02-1999
		WO 9905154 A1	04-02-1999
		US 6242623 B1	05-06-2001
		US 2003007152 A1	09-01-2003
		US 2002197731 A1	26-12-2002
		US 2002098471 A1	25-07-2002
		US 6419881 B1	16-07-2002
US 2002074897	A1	20-06-2002	US 2003168929 A1
			11-09-2003
US 2002178805	A1	05-12-2002	CA 2447317 A1
			21-11-2002
			EP 1397661 A2
			17-03-2004
			GB 2392980 A
			17-03-2004
			WO 02093126 A2
			21-11-2002